

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) An antenna device for use in a wireless communication apparatus, comprising:

a base member ~~including which is composed of~~ a dielectric material and which includes has a peripheral surface and a plain surface;

a first antenna element which is formed on said peripheral surface of said base member with said first antenna element having a three-dimensional configuration; and

a second antenna element which is formed on at least one of either said peripheral surface and ~~or~~ said plain surface of said base member with a predetermined distance being kept from said first antenna element,

said second antenna element having a three-dimensional configuration when formed on said peripheral surface,

said second antenna element having a two-dimensional configuration when formed on said plain surface.

2. (Currently amended) An antenna device as claimed in claim 1, wherein said three-dimensional configuration of at least one of said first antenna element and said second antenna element comprises ~~[[is]]~~ a circular cone-shaped configuration.

3. (Currently amended) An antenna device as claimed in claim 1, wherein said three-dimensional configuration of at least one of said first antenna element and said second antenna element comprises ~~[[is]]~~ a pyramid-shaped configuration.

4. (Currently amended) An antenna device as claimed in claim 1, wherein said three-dimensional configuration of at least one of said first antenna element and said second antenna element comprises ~~[[is]]~~ a pole-shaped configuration.

5. (Currently amended) An antenna device as claimed in claim 1, wherein said three-dimensional configuration of at least one of said first antenna element and said second antenna element comprises ~~[[is]]~~ a tube-shaped configuration.

6. (Currently amended) An antenna device for use in a wireless communication apparatus, comprising:
a base member including a dielectric material and which includes a peripheral surface and a plain surface;

a first antenna element which is formed on said peripheral surface of said base member with said first antenna element having a three-dimensional configuration; and

a second antenna element which is formed on at least one of said peripheral surface and said plain surface of said base member with a predetermined distance being kept from said first antenna element,

said second antenna element having a three-dimensional configuration when formed on said peripheral surface,

said second antenna element having a two-dimensional configuration when formed on said plain surface,

~~An antenna device as claimed in claim 1,~~

wherein said two-dimensional configuration comprises ~~[[is]]~~ a plane-shaped configuration.

7. (Original) An antenna device as claimed in claim 1, wherein said first antenna element is formed on an inner peripheral surface of said base member.
8. (Original) An antenna device as claimed in claim 1, wherein said second antenna element is formed on an inner peripheral surface of said base member.
9. (Original) An antenna device as claimed in claim 1, wherein said first antenna element and said second antenna element are formed with respective rotation central axes thereof being corresponding with each other.
10. (Currently amended) An antenna device for use in a wireless communication apparatus, comprising:
 - a base member including a dielectric material and which includes a peripheral surface and a plain surface;
 - a first antenna element which is formed on said peripheral surface of said base member with said first antenna element having a three-dimensional configuration; and
 - a second antenna element which is formed on at least one of said peripheral surface and said plain surface of said base member with a predetermined distance being kept from said first antenna element,
 - said second antenna element having a three-dimensional configuration when formed on said peripheral surface,
 - said second antenna element having a two-dimensional configuration when formed on said plain surface,

~~An antenna device as claimed in claim 1,~~

further comprising a third antenna element which is formed on said base member with a predetermined distance being kept with respect to said first and said second antenna elements.

11. (Original) A wireless communication apparatus in which said antenna device as claimed in claim 1 is used, wherein a signal from a signal source is supplied to said first antenna element while a ground voltage is supplied to said second antenna element.

12. (Original) A wireless communication apparatus in which said antenna device as claimed in claim 1 is used, wherein a signal from a signal source is supplied to said second antenna element while a ground voltage is supplied to said first antenna element.

13. (Currently amended) A wireless communication apparatus in which said antenna device as claimed in claim 10 is used, wherein a signal from a signal source is supplied to said first antenna element while a ground voltage is supplied to said second antenna element, and

wherein said third antenna element comprises ~~[[is]]~~ a parasitic antenna.

14. (Currently amended) A wireless communication apparatus in which said antenna device as claimed in claim 10 is used, wherein a signal from a signal source is supplied to said second antenna element while a ground voltage is supplied to said first antenna element, and

wherein said third antenna element comprises ~~[[is]]~~ a parasitic antenna.

15. (New) An antenna device as claimed in claim 1, wherein said base member comprises:

a pole-shaped base member.

16. (New) An antenna device as claimed in claim 1, wherein said pole-shaped base member comprises:

a long and slender cylindrical base member which is longer in the axial direction than in the radial direction.

17. (New) An antenna device as claimed in claim 15, wherein said pole-shaped base member comprises:

a first conical inner space and a second conical inner space each formed in said pole-shaped base member.

18. (New) An antenna device as claimed in claim 17, wherein a rotation central axes of said first conical inner space corresponds with a rotation central axes of said second conical inner space, and

wherein a top face of said first conical inner space and a top face of said second conical inner space are faced oppositely to each other.

19. (New) An antenna device as claimed in claim 17, wherein said peripheral surface of said base member upon which said first antenna is formed comprises:

an inner peripheral surface of said first conical inner space.

20. (New) An antenna device as claimed in claim 17, wherein said peripheral surface of said base member upon which said second antenna is formed comprises:

an inner peripheral surface of said second conical inner space.